

NOT FOR EUROPE

Dart Aerospace Ltd.

Date: Tuesday, 28/10/2008 10:50:18 AM
User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : LONG STEP ASSEMBLY HIGH SKID LH
Job Number : 43004
Estimate Number : 10270
P.O. Number :
This Issue : 28/10/2008 S.O. No. :
Prsht Rev. : NC Part Number : D350591311
First Issue : / / Type : LARGE FAB ASSY Drawing Number : D3272 REVB
Previous Run : 41653 Project Number : N/A
Drawing Revision : B
Material :
Due Date : 07/11/2008 Qty: 4 Um: Each
Written By :
Checked & Approved By :
Comment : Est Rev:A 04.03.22 New issue KJ/RF
Est Rev:B 07-06-09 Added D3272-1 JLM
Est Rev:C 08-04-02 ECN1163 DD verified by:EC
Est Rev:D 08-04-08 ECN1164 DD verified by:EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0

DC

DOCUMENT CONTROL



JLD 08.11.12



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-311 CHG002

2.0

D32721

Step



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

STEP

BATCH: B43035

SP 08.11.05

(4X)

3.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3067-1

End Plate

B41447

SP 08.11.05

(4X)

4.0

D32191

Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3219-1

Support

B42992

SP 08.11.05

(8X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 28/10/2008 10:50:18 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 43004

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod

M 109213
M 104855

SP 08.11.03 4x

3-Grind End Plate flush

SAD 08.11.03

(4)

6.0

QC9

VISUAL WELDING INSPECTION



P 08-11-06

BE 08-11-06 (4)



(4)

Comment: VISUAL WELDING INSPECTION

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08.11.06

(4)

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

FL 08/11/07

(4)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

M-L 08/11/07

(4X)

10.0

D3065041

Step Leg Assembly Hi



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

B41445

SAD 08-10-10

4

11.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

B41446

SAD

08-11-10

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 28/10/2008 10:50:18 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 43004

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total : 64.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 MS20600AD4W4

Rivet

M108827

SAD

08-10-10 Y

13.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Assemble Leg Assembly as per Dwg D3272.

Leave one rivet out until welding is complete.

SAD

08-11-10 (4)

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SAD 08-11-10 (4)

15.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3067-1

End Plate

B41447

(4X)

SP 08-11-10

16.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 024

3-Weld Aft End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod H. 104855

SP 08-11-10

(4X)

4-Grind End Plate flush

5-Install last rivet as per Dwg.

SAD

08-11-10

(4X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 28/10/2008 10:50:18 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 43004

Part Number: D350591311

Job Number:



Seq. #: Machine Or Operation: Description :

17.0

QC9

VISUAL WELDING INSPECTION



pl 08-11-10



Comment: VISUAL WELDING INSPECTION

BE 08/11/10 (4)

18.0

QC5

INSPECT WORK TO CURRENT STEP



08-11-11 (4)



Comment: INSPECT WORK TO CURRENT STEP

LH

19.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1
touch up alodine

FL 08/11/11 (4)

20.0

POWDER COATING

POWDER COATING



m109152



Comment: POWDER COATING
Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

(4)

START TIME: 10:10
OVEN TEMPERATURE: 320°
FINISH TIME: 10:40

FL 08/11/11

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



M109219



(4X)

Comment: HAND FINISHING RESOURCE #1
Wing Walk as per Dwg D3272 and QSI 005 4.4

m-h 08/11/11

22.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



FL 08/11/11



(4)

Comment: Inspect Powder Coat and Wing Walk

23.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Pick Packing Kit

24.0

D22303

Lug



(4X)

Comment: Qty.: 4.0000 Each(s)/Unit Total: 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch
4 D2230-3 Mounting Lug 1941334

8/11/12

SP

Date: Tuesday, 28/10/2008 10:50:18 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 43004

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

D2618

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2618

Bushing

1540028

SP

26.0

D2856400

Abraison Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 2.4000 f(s)

Abraison Strip

2 x D2856-400-720

42076

SP

27.0

D32351

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D3235-1

Mounting Lug

1541342

SP

28.0

D3278041

Support Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D3278-041

Support Assembly

1541346

SP

29.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN3-35A

Bolt

1108827

SP

30.0

AN413A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 32.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 AN4-13A

Bolt

1109205

8/11/12

(4X)

SP

Date: Tuesday, 28/10/2008 10:50:18 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 43004

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

AN536A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 AN5-36A

Bolt

M109068

32.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer

M109059

33.0

AN960JD416

Washer



Comment: Qty.: 16.0000 Each(s)/Unit Total : 64.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

16 AN960JD416

Washer

M108827

34.0

AN960JD516

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD516

Washer

M109282

35.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3

Nut (or -3)

M109031

8/16/14

Date: Tuesday, 28/10/2008 10:50:18 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LONG STEP ASSEMBLY HIGH SKID LH

Job Number: 43004

Part Number: D350591311

Job Number:



Seq. #:

Machine Or Operation:

Description :

36.0

MS21042L4

Nut



Comment: Qty.: 8.0000 Each(s)/Unit Total : 32.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

8 MS21042L4 Nut (or -4)

M108145

SP

37.0

MS21042L5

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L5 Nut (or -5)

M108821

8/11/12

(11)

SP

38.0

DSI9410011

Step Modification



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Step Modification

8/11/12

(11)

SP

39.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

08-11-12 (9)

40.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-5913111

Location:

12 Ben D 8/11/12

(1)

SP

41.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/11/12

Job Completion



MF 08-11-12

DART

DESIGN <i>qp</i>	DRAWN BY <i>js</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>js</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

RELEASED07.06.04 *js*

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

GENERAL NOTES:

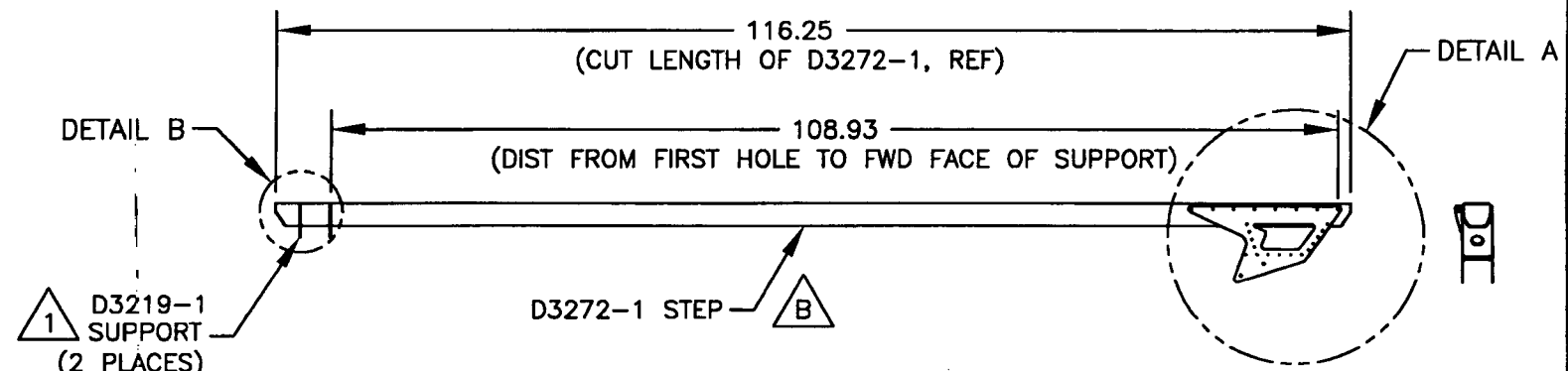
- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

*WLO 43004***Copyright © 2004 by DART AEROSPACE LTD**

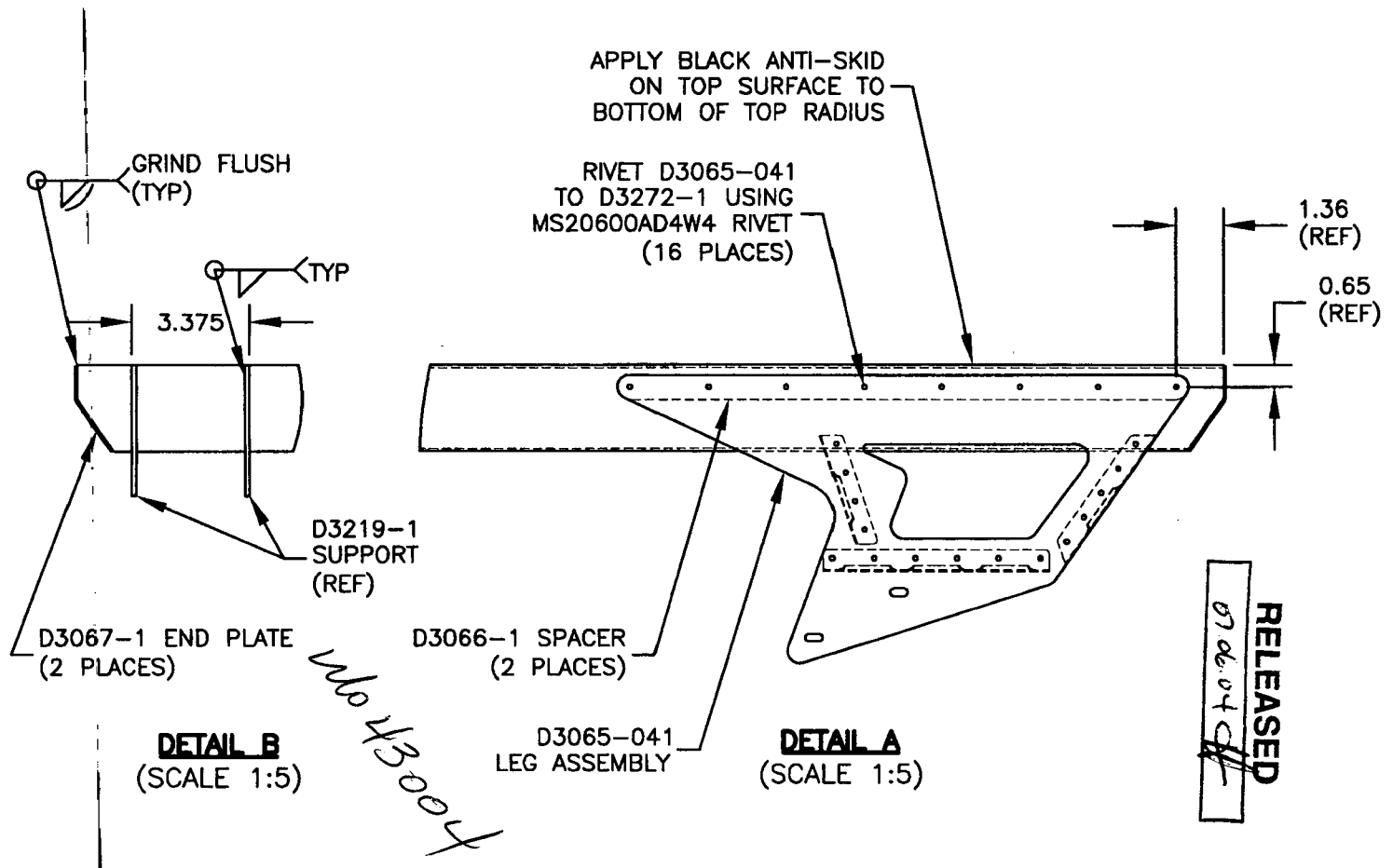
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN	qo	DRAWN BY	qo	DART AEROSPACE LTD
CHECKED	Le	APPROVED	qo	HAWKESBURY, ONTARIO, CANADA
DATE	07.05.18	TITLE	D3272	REV. B
			STEP ASSEMBLY, HI LONG	SHEET 2 OF 3
				SCALE 1:20



D3272-041 STEP ASSEMBLY (LH. SHOWN)
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)



THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

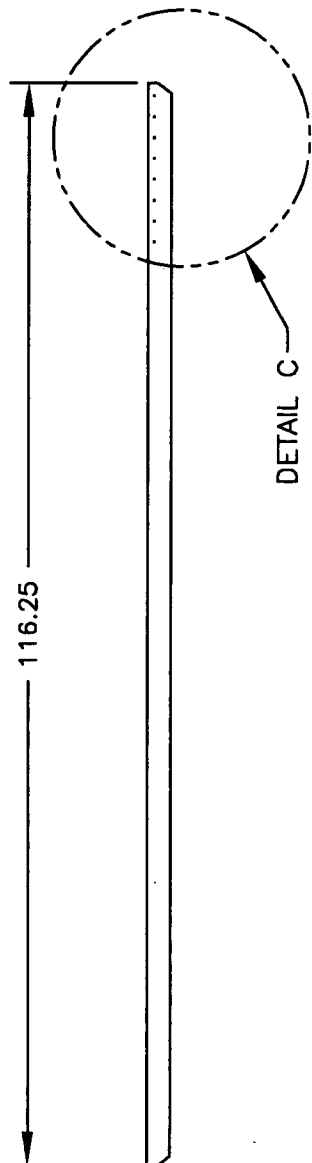
Copyright © 2004 by DART AEROSPACE LTD



DESIGN GP	DRAWN BY B	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED H	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE 1:20

RELEASED

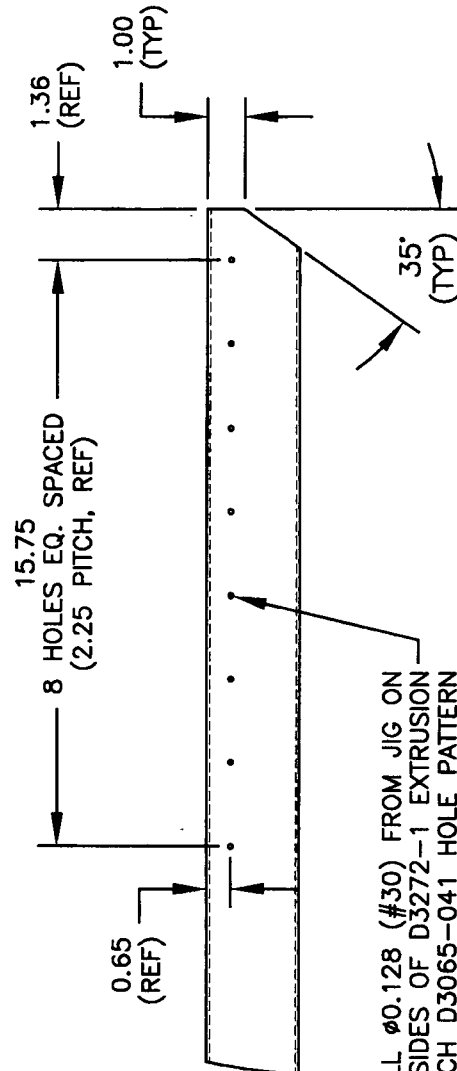
07.06.04



DETAIL C

B D3272-1 STEP

(MAKE FROM D2622-120 STEP EXTRUSION)



DRILL $\phi 0.128$ (#30) FROM JIG ON BOTH SIDES OF D3272-1 EXTRUSION TO MATCH D3065-041 HOLE PATTERN

DETAIL C
(SCALE 1:5)

Wb 43004

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.